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(12) **United States Patent**  
**Payton**

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(54) **SYSTEM FOR ACOUSTICALLY PASSING ELECTRICAL SIGNALS THROUGH A HULL**

5,452,265 A • 9/1995 Corsaro ..... 367/152  
5,594,705 A • 1/1997 Connor et al. .... 367/13

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**OTHER PUBLICATIONS**

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Hobart et al., "Acoustic Modem Unit", Oceans 2000 MTS/IEEE Conference and Exhibition, pp. 769-772, vol. 2., Sep. 2000.\*

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\* cited by examiner

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(57) **ABSTRACT**

(51) Int. Cl.<sup>7</sup> ..... **H04B 11/00**

(52) U.S. Cl. .... **367/134**

(58) Field of Search ..... **367/134, 903, 367/135, 137; 310/334**

A system is disclosed that allows passage of electrical signals across a rigid boundary, such as a pressure hull of a submarine or vessel that operates in water. The passages provided by acoustic means are accomplished without any holes being made in the rigid boundary.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

**4,928,264 A • 5/1990 Kahn ..... 367/141**

**6 Claims, 1 Drawing Sheet**

